

**REMARKS**

Claims 1-27 are pending in this application. By this Amendment, the specification and claims 1, 4-7, 10, 12-14, 23 and 25-27 are amended. The amendments introduce no new matter as they are generally administrative, i.e. correcting typographical errors. Substantive amendments to the claims are supported at least by paragraph [0007] of the specification, as originally filed. Reconsideration based on the above amendments and the following remarks is respectfully requested.

The Office Action, in paragraph 1, objects to the specification for a number of informalities. The specification is amended in view of the helpful suggestions made in the Office Action in order to obviate the objections. Withdrawal of the objections to the specification is respectfully requested.

The Office Action, in paragraph 3, objects to claims 1, 4, 26 and 27 because of certain informalities. Claims 1, 4, 26 and 27 are amended to obviate the objections. Withdrawal of the objections to claims 1, 4, 26 and 27 are respectfully requested.

The Office Action, in paragraph 8, states that claims 3, 5, 7, 8, 16, 18 and 20-21 contain allowable subject matter. Specifically, the Office Action states that the enumerated claims would be allowable if rewritten in independent form including all of the features of the base claims and any intervening claims. Applicant appreciates this indication of allowability, but respectfully submits that at least independent claims 1 and 14, from which the enumerated claims directly and indirectly depend, are allowable for at least the reasons set forth below.

The Office Action, in paragraph 5, rejects claims 14, 15, 17, 25 and 26 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,445,749 B2 to Feher. This rejection is respectfully traversed.

Feher discloses a complex methodology for gaining power advantage and improved efficiency in signal processors, modulators/demodulators (modems), transmitters/receivers

(transceivers), and particularly in cross-coupled signal processors to provide power efficient partly-linearized and non-linearly amplified systems (Abstract and col. 1, lines 15-22).

Specifically, an improved form of phase shift keying (PSK) called Feher's binary phase shift keying (FBPSK) is disclosed in which an input binary data stream is split into I and Q channels by splitter prior to being fed to baseband processing circuitry (col. 6, lines 1-4).

Feher describes attenuation of these I and Q channel components of the input signal.

Applicant respectfully submits that I and Q channels represent a well defined method of dividing an input data signal into two component parts, the resulting channels covering a same frequency band. Such attenuation is distinguishable from the methods recited in the enumerated claims in that these claims are directed to a method of attenuating any number of input component signals at any number of randomly varying frequencies.

Additionally, with reference to Fig. 18 of Feher, Applicant respectfully submits that the conclusion of the Office Action that all of the features recited in independent claim 14 are depicted is in error. The Office Action asserts that element 104 is a controller. The specification at at least col. 14, line 66 discloses that element 104 in Fig. 18 is a quadrature modulator. Further, the Office Action asserts that element 1802 is a memory coupled to the controller. Applicant respectfully submits that the specification discloses that element 1802 of Fig. 18 is rather a 90° phase shifter (col. 15, lines 21-22). In like manner, Applicant respectfully submits that the characterizations of individual references listed at the end of paragraph 5, subparagraph (1) as arguably disclosing the rest of the features of independent claim 14 contain inaccuracies as well.

Claim 14 recites, among other features, a memory coupled to a controller, the controller generating a combined signal that is a combination of a plurality of input signals, and attenuating amplitudes of selected ones of the input signals to generate attenuated input signals wherein the attenuated input signals and other non-attenuated input signals may be

output for combination to form the constant envelope combined signal. Applicants respectfully submit that Feher's use of phase shift keying of the I and Q channel components of an input signal cannot reasonably be read to disclose, or even suggest, attenuating amplitudes of selected ones of input signals to generate attenuated input signals, as is recited, among other features, in independent claim 14.

For at least these reasons, Applicant respectfully submits that Feher does not anticipate the combination of all of the features recited in independent claim 14. Additionally, Applicant respectfully submits that dependent claims 15, 17 and 25 are neither anticipated by Feher for at least their respective direct and indirect dependence on independent claim 14. Finally, claim 26 is also not anticipated by Feher for at least the reasons set forth above.

Accordingly, reconsideration and withdrawal of the rejection of claims 14, 15, 17, 25 and 26 under 35 U.S.C. §102(e) as being anticipated by Feher are respectfully requested.

The Office Action, in paragraph 7, rejects claims 1, 2, 4, 6, 9, 10-13, 19, 22-24 and 27 under 35 U.S.C. §103(a) as being unpatentable over Feher as applied to claims 14 and 15 above in view of U.S. Patent No. 6,335,951 to Cangiani et al. (hereinafter "Cangiani"). This rejection is respectfully traversed.

Cangiani discloses a method for generating a global positioning signal from a space-based craft including multiple steps which ultimately result in combining at least one in-phase modulated signal component and at least one-quadrature modulated signal component to generate the global positioning signal (Abstract). Applicant respectfully submits that the method disclosed in Cangiani teaches away from combining it with conventional waveform generator architectures such as that disclosed in Feher. Specifically, Cangiani states that although such conventional waveform generator architectures can generally be used for communications systems, such an approach is not suitable for broadcast of the GPS

navigation signals from space, the disclosure of Cangiani going on to recite the limitations that lead to this conclusion (col. 1, line 57 - col. 2, line 8).

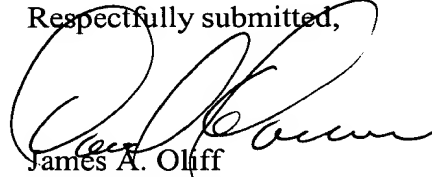
Further, Applicant respectfully submits that the phase modulation disclosed in Cangiani does not overcome the shortfalls in the application of Feher with respect to the subject matter of the enumerated claims. Specifically, Applicant respectfully submits that there is nothing in the combination of Feher and Cangiani to suggest attenuating amplitudes of selected ones of input signals to generate attenuated input signals, as is varyingly recited in the independent claims of this application. As such, the combination of Feher and Cangiani cannot reasonably be read to suggest all of the features recited at least in independent claims 1, 13 and 27. Additionally, Applicant respectfully submits that claims 2, 4, 6, 9, 10-12, 19 and 22-24 are also not suggested by the combination of the applied references at least for the respective dependence of these claims, directly and indirectly, on independent claims 1 and 14.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2, 4, 6, 9, 10-13, 19, 22-24 and 27 under 35 U.S.C. §103(a) as being unpatentable over the combination of Feher and Cangiani are respectfully requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, 4, 6, 9-15, 17, 19 and 22-27, in addition to the indicated allowable subject matter of claims 3, 5, 7, 8, 16, 18, 20 and 21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



James A. Oliff

Registration No. 27,075

Daniel A. Tanner, III

Registration No. 54,734

JAO:DAT/rle

Date: November 29, 2004

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

**DEPOSIT ACCOUNT USE  
AUTHORIZATION**

Please grant any extension  
necessary for entry;  
Charge any fee due to our  
Deposit Account No. 15-0461